

Application No. 10/666,211  
Amendment dated September 30, 2005  
Reply to Office Action of June 30, 2005

Docket No. 1232-5161

**Amendments to the Drawings:**

The attached sheet of drawings includes changes to Figs. 12A, 12B, 13 and 15. These sheets replace the original sheets including Figs. 12A, 12B, 13 and 15. In each of Figs. 12A, 12B, 13 and 15, "X" is amended to -- X' --, and "Y" is amended to -- Y' --.

Attachment: Four Replacement Sheets for Figs. 12A, 12B, 13 and 15

**REMARKS**

Applicants respectfully request reconsideration of this application in view of the foregoing amendment and following remarks.

**Status of the Claims**

Claims 1-5 are pending in this application. Claim 1 is independent. Claims 1-5 stand rejected. By this amendment, claims 1 and 2 are amended, and new claims 18-20 are added. No new matter has been added by this amendment.

**Rejection under 35 U.S.C. §112**

In paragraph three (3) of the Final Office Action, claims 1-5 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite.

The Office Action indicates, *inter alia*, that the claims, specification and drawings are unclear in describing that the light is s-polarized in a tangential direction.

As indicated above, Figs. 12A, 12B, 13 and 15 and relevant portions of the specification have been amended for further clarification. In particular, "X"s and "Y"s in Figs. 12A, 12B, 13 and 15 have been amended to read -- X' -- and -- Y' --, respectively. X' and Y' axes in these figures are different from X and Y in other figures. The s-polarized light is polarized in a direction perpendicular to the section of the projection optical system OP, whereas the p-polarized light is polarized in a direction parallel to the section of the projection optical system OP. In other words, the s-polarized light is polarized in a tangential direction, whereas the p-polarized light is polarized in a radial direction.

Reconsideration and withdrawal of the rejections of claims 1-5 as amended under 35 U.S.C. §112, second paragraph, is respectfully requested.

**Rejection under 35 U.S.C. §102**

In paragraph five (5) of the Final Office action, claims 1-5 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,404,482 to Shiraishi (“Shiraishi”).

The Examiner indicates that Shiraishi in Fig. 7 (FB1, FB2) discloses an illumination system that utilizes a first and second regions with two different polarization states.

As indicated above, claim 1 has been amended for further clarification. In particular, amended claim 1 recites, *inter alia*, “illuminating the mask ..., the first and second parts having different light intensities; and projecting, through a projection optical system having ... a numerical aperture of 0.9 or greater...” Support for the amendment may be found, for example, at page 12, line 23 and page 20, lines 20-23 of the original specification.

Shiraishi discloses an illumination system that uses a polarization control member (PCM) as shown in Fig. 4. In particular, Fig. 7 of Shiraishi discloses the distribution of light polarization after passing the PCM. Applicants note, for example, that the second embodiment (i.e., embodiment 1-8) discloses a polarization distribution of light after PCM in which both of a p-polarized light and s-polarized light are circularly polarized in the area FA1 and either one of the p-polarized light or s-polarized light is circularly polarized in the area FB1.

As Applicants understand it, however, there is simply nothing in Shiraishi that teaches this aspect of invention as discussed above, i.e., “illuminating the mask ..., the first and second parts having different light intensities; and projecting, through a projection optical system having ... a numerical aperture of 0.9 or greater...”

Accordingly, claim 1 is believed neither anticipated by nor rendered obvious in view of Shiraishi for at least the reasons discussed above.

Reconsideration and withdrawal of the rejection of claim 1 under 35 U.S.C. §102(b) is respectfully requested.

Applicants have not individually addressed the rejections of the dependent claims because Applicants submit that the independent claims from which they respectively depend are in condition for allowance as set forth above. Applicants however reserve the right to address such rejections of the dependent claims should such be necessary.

**New Claims**

New claims 18-20 are added to recite the claimed feature in an alternative manner. Specifically, each of new claims 18-20 depends from claim 1, either directly or indirectly, Added claims 18-20 are accordingly believed to be allowable over the cited reference (i.e., Shiraishi) for at least the similar reasons as for claim 1.

Applicants believe that the application as amended is in condition for allowance and such action is respectfully requested.

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**AUTHORIZATION**

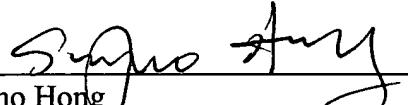
No petitions or additional fees are believed due for this amendment and/or any accompanying submissions. However, to the extent that any additional fees and/or petition is required, including a petition for extension of time, Applicants hereby petition the Commissioner to grant such petition, and hereby authorizes the Commissioner to charge any additional fees, including any fees which may be required for such petition, or credit any overpayment to Deposit Account No. 13-4500 (Order No. 1232-5161). A DUPLICATE COPY OF THIS SHEET IS ENCLOSED.

An early and favorable examination on the merits is respectfully requested.

Respectfully submitted,  
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Dated: September 30, 2005

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